

INTERNATIONAL PRELIMINARY EXAMINATION REPORT
(PCT Article 36 and Rule 70)

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Applicant's or agent's file reference F17326	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/B 03/02032	International filing date (day/month/year) 27.05.2003	Priority date (day/month/year) 31.05.2002
International Patent Classification (IPC) or both national classification and IPC A43B3/00		
Applicant CSIR et al.		

- This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 6 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

 These annexes consist of a total of 7 sheets.

- This report contains indications relating to the following items:
 - I ☒ Basis of the opinion
 - II ☐ Priority
 - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☐ Certain observations on the international application

Date of submission of the demand 12.11.2003	Date of completion of this report 04.10.2004
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I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17))*):

Description, Pages

2-14 as published
1, 1a received on 13.09.2004 with letter of 10.09.2004

Claims, Numbers

1-25 received on 13.09.2004 with letter of 10.09.2004

Drawings, Sheets

1/2-2/2 as published

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

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5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-11
	No: Claims	12-14
Inventive step (IS)	Yes: Claims	1-11
	No: Claims	12-15,17-18,25
Industrial applicability (IA)	Yes: Claims	1-25
	No: Claims	

2. Citations and explanations

see separate sheet

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Re Item V

**Reasoned statement under Article 35(2) with regard to novelty,
inventive step or industrial applicability; citations and explanations
supporting such statement**

1. State of the art

- 1.1 The amendments filed with the letter dated 10.09.2004 introduce subject-matter which extends beyond the content of the application as filed, contrary to Article 34(2)(b) PCT. The amendments concerned are the following:

In claim 1, line 18, the term "*inhibiting*" qualifying the propagation of any said stray component has replaced the original word "*attenuating*". There is no basis for such amendment in the original disclosure and it is believed that inhibiting is stronger than only attenuating a propagation. On line 20, the passage "*low acoustic speed lower than 200 m/sec*" has been replaced by "*low acoustic speed*". This generalisation is not allowable and further since only the relative adjective "*low*" qualifies the speed, it renders the claim unclear (Art.6 PCT). This also applies to claim 12, line 15.

In claim 3, there is no basis for claiming an acoustic speed "*at least as high as the acoustic speed of glass*". The same applies for claim 14.

In claim 12, line 12, the "*solid material*" for the shock wave guide member has been generalised to a "*material*". This is not allowable.

2. Independent claim 1

- 2.1 The subject-matter of independent claim 1 is without doubt novel in the sense of Article 33(2) PCT, since its features as a whole are not known from the documents found in the search report.

- 2.2 Document **US-A-3 243 898 (D1)** shows a method of protecting a foot from effects of a landmine including:

guiding shock waves obliquely away from said foot by means of an obliquely oriented shock wave guide member 2 embedded in a sole volume (see figures 3 and 7; col.2, line 50 - col.3, line 7), the shock wave guide member 2 being of a material having an acoustic speed of at least more than 3000 m/s (aluminium, $v=6420$ m/s, col.2, lines 32-34);

attenuating propagation of any stray component of the shock waves in a direction toward said foot in the sole volume of the article of footwear by means of a layer 8 (See fig.3) of material having a low acoustic speed lower than 200 m/s (col.3, lines 2-7 and 53-54) arranged between the shock wave guide member and an innersole of the article of footwear.

- 2.3 The problem to be solved by the present invention may therefore be regarded as protecting the foot from the effect of the shock waves created by an explosion.
- 2.4 This problem is solved by the present computer furniture system as defined by the features combination of claim 1:
- the material of the shock wave guide member is cracked at a speed of crack progression lower than its acoustic speed;
 - and is further spalled at a downstream end of the shock wave guide member to create a path of lesser resistance for a blast following the shock wave;
 - the blast follows said path; whereby the cracked material has to be removed to render said path open;
 - Stray components of the shock wave are then deflected in the guide member.
- 2.5 None of the remaining available prior art discloses or suggests the distinguishing features of claim 1.
- 2.6 Thus, the subject-matter of independent claim 1 also involves an inventive step in the sense of Article 33(3) PCT.

3. Dependent claims 2-11

The same conclusion must also apply to dependent claims 2-11, which constitute various embodiments of the claims to which they refer.

4. Independent claim 12

- 4.1 The present application does not meet the requirements of Article 33(1) PCT, because the subject-matter of claim 12 is not novel in the sense of Article 33(2) PCT.
- 4.2 Document **D2** shows an article of footwear comprising the features defined in claim 12 (see page 5, lines 9-17 and p.6, line 23 to p.7, line 13).

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In particular, this document shows an article of footwear having a shock wave guide member 5,8,16b partly made of steel, which is believed to be prone to cracking at a crack propagation velocity lower than its acoustic velocity*. It also shows a blocking material having a low acoustic speed (see plug 19)

* *crack propagation velocity* as well as *acoustic velocity* are material characteristics which depend on environmental conditions such as temperature, pressure and stresses (for crack propagation). Since none of these important parameters are defined in the claim, the invention is not sufficiently disclosed to enable the skilled man to perform the invention (Article 5 PCT).

5. Dependent claims 13-25

5.1 Dependent claims 13-15, 17-18 and 25 appear to relate to minor constructional features which, insofar as not directly disclosed in the prior art revealed in the present application or in the search report, represent obvious modifications thereof. Such features will be selected and used by a man skilled in the art when he needs them, and appear not to involve an inventive step within the meaning of Article 33(3)PCT when combined with the subject-matter of claim 12.

5.2 However, the combination of the features of dependent claim 21 is neither known from, nor rendered obvious by, the available prior art. It is suggested therefore that a new independent claim 17 be drafted to include these features, bearing in mind that the features known in combination in D1 or D2 should be placed in the preamble of such a claim in accordance with Rule 6.3(b) PCT. Those dependent claims which are consistent with such a new independent claim could be appended thereto, provided that the resulting combination of features has been disclosed in the application as originally filed.